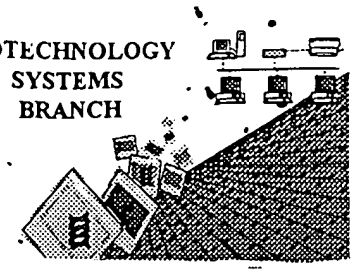
BIOTECHNOLOGY
SYSTEMS
BRANCH



# RAW SEQUENCE LISTING ERROR REPORT

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:**

Application Serial Number: 10/072,602
Source: OIPE
Date Processed by STIC: 2-28-2002

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**
**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.**

**FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.**
**PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)**
**PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)**

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
**http://www.uspto.gov/web/offices/pac/checker**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. **Hand Carry directly to:**
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
   Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to:** U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

# Raw Sequence Listing Error Summary .

**ERROR DETECTED** **SUGGESTED CORRECTION** **SERIAL NUMBER:** 10/072,602

**ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE**

| | | |
|---|---|---|
| 1 | Wrapped Nucleics<br>Wrapped Aminos | The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping." |
| 2 | Invalid Line Length | The rules require that a line not exceed 72 characters in length. This includes white spaces. |
| 3 | Misaligned Amino Numbering | The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead. |
| 4 | Non-ASCII | The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text. |
| 5 | Variable Length | Sequence(s)____contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing. |
| 6 | PatentIn 2.0 "bug" | A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences. |
| 7 | Skipped Sequences (OLD RULES) | Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:<br>(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)<br>(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>This sequence is intentionally skipped<br><br>Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences. |
| 8 | Skipped Sequences (NEW RULES) | Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.<br><210> sequence id number<br><400> sequence id number<br>000 |
| 9 ✓ | Use of n's or Xaa's (NEW RULES) | Use of n's and/or Xaa's have been detected in the Sequence Listing.<br>Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.<br>In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents. |
| 10 | Invalid <213> Response | Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence |
| 11 | Use of <220> | Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.<br>Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.<br>(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules) |
| 12 | PatentIn 2.0 "bug" | Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk. |

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/072,602

DATE: 02/28/2002
TIME: 12:35:23

Input Set : A:\2314-249.ST25.txt
Output Set: N:\CRF3\02282002\J072602.raw

Does Not Comply
Corrected Diskette Needed

```
      3 <110> APPLICANT: University of Utah Research Foundation
      4       Cognetix, Inc.
      5       Olivera, Baldomero M.
      6       McIntosh, J, Michael
      7       Watkins, Maren
      8       Garrett, James E.
      9       Cruz, Lourdes J.
     10       Grilley, Michelle
     11       Schoenfeld, Robert M.
     12       Walker, Craig
     13       Shetty, Reshma
     14       Jones, Robert M.
     16 <120> TITLE OF INVENTION: Cone Snail Peptides
     18 <130> FILE REFERENCE: 2314-249
C--> 20 <140> CURRENT APPLICATION NUMBER: US/10/072,602
C--> 20 <141> CURRENT FILING DATE: 2002-02-11
     20 <150> PRIOR APPLICATION NUMBER: US 60/267,408
     21 <151> PRIOR FILING DATE: 2001-02-09
     23 <160> NUMBER OF SEQ ID NOS: 638
     25 <170> SOFTWARE: PatentIn version 3.0
```

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

**ERRORED SEQUENCES**

```
     3354 <210> SEQ ID NO: 120
     3355 <211> LENGTH: 68
     3356 <212> TYPE: PRT
     3357 <213> ORGANISM: Conus geographus
     3359 <400> SEQUENCE: 120
E--> 3361 Met Gly Met Arg Met Xaa Phe Ser Val Phe Xaa Gln Val Val Xaa Gly
     3362 1               5                  10                  15
E--> 3365 Thr Thr Val Val Ser Phe Xaa Ser Arg Arg Gly Pro Lys Ser Arg Arg
     3366             20                  25                  30
     3369 Gly Glu Pro Ile Pro Thr Thr Val Ile Asn Tyr Gly Glu Cys Cys Lys
     3370         35                  40                  45
     3373 Asp Pro Ser Cys Trp Val Lys Val Lys Asp Phe Gln Cys Pro Gly Ala
     3374     50                  55                  60
     3377 Ser Pro Pro Asn
     3378 65
     7880 <210> SEQ ID NO: 282
     7881 <211> LENGTH: 61
     7882 <212> TYPE: PRT
     7883 <213> ORGANISM: Conus betulinus
```

ALL Xaa must have feature containing numeric identifiers <2207-<2223>. See item #9 on ERROR Summary SHEET.

RAW SEQUENCE LISTING DATE: 02/28/2002
PATENT APPLICATION: US/10/072,602 TIME: 12:35:24

Input Set : A:\2314-249.ST25.txt
Output Set: N:\CRF3\02282002\J072602.raw

```
    7885 <400> SEQUENCE: 282
    7887 Met Arg Cys Leu Pro Val Phe Ile Ile Leu Leu Val Leu Ile Ala Ser
    7888 1               5                   10                  15
    7891 Ala Pro Thr Val Asp Ala Arg Pro Lys Ile Glu Asp Asp Glu Ser Leu
    7892             20                  25                  30
E--> 7895 Ala Ser Phe His Xaa His Xaa Pro Pro Xaa Xaa Xaa Thr Leu Leu Asn
    7896         35                  40                  45
    7899 Lys Arg Asn Cys Cys Pro Asp Ser Pro Pro Cys Cys His
    7900     50                  55                  60
    9372 <210> SEQ ID NO: 342
    9373 <211> LENGTH: 64
    9374 <212> TYPE: PRT
    9375 <213> ORGANISM: Conus episcopatus
    9377 <400> SEQUENCE: 342
    9379 Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser
    9380 1               5                   10                  15
E--> 9383 Gly Pro Xaa Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
    9384             20                  25                  30
    9387 Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
    9388         35                  40                  45
    9391 Gln Asp Lys Ser Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
    9392     50                  55                  60
   10217 <210> SEQ ID NO: 377
   10218 <211> LENGTH: 37
   10219 <212> TYPE: PRT
   10220 <213> ORGANISM: Conus geographus
   10222 <400> SEQUENCE: 377
E--> 10224 Ser Asp Xaa Arg Asp Asp Thr Ala Lys Asp Glu Gly Ser Xaa Met Asp
   10225 1               5                   10                  15
   10228 Lys Leu Val Glu Lys Lys Glu Cys Cys His Pro Ala Cys Gly Lys His
   10229             20                  25                  30
   10232 Tyr Ser Cys Gly Arg
   10233         35
```

see page 1

★ Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 02/28/2002
PATENT APPLICATION: US/10/072,602 TIME: 12:35:26

Input Set : A:\2314-249.ST25.txt
Output Set: N:\CRF3\02282002\J072602.raw

L:20 M:270 C: Current Application Number differs, Replaced Current Application No
L:20 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:368 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:532 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:971 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:974 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:1058 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:1061 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:1144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39
L:1147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39
L:1230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:1233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:1302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48
L:1442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
L:1511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54
L:1582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57
L:1653 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60
L:1656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60
L:1726 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63
L:1811 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66
L:1814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66
L:1900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69
L:1903 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69
L:1906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69
L:1992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72
L:1995 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72
L:1998 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72
L:2086 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75
L:2089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75
L:2177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78

VERIFICATION SUMMARY DATE: 02/28/2002
PATENT APPLICATION: US/10/072,602 TIME: 12:35:26

Input Set : A:\2314-249.ST25.txt
Output Set: N:\CRF3\02282002\J072602.raw

L:2180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78
L:2266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81
L:2269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81
L:2272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81
L:3361 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:120
M:340 Repeated in SeqNo=120
L:7895 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:282
L:9383 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:342
L:10224 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:377